

REMARKS

The Examiner has withdrawn the previous rejection based on prior art. Instead, she now rejects all of the claims in the application, claims 114-184, under 35 USC 103 as being obvious over the Hillson reference (US 6,118,860) in view of the newly-cited Albert et al. reference (US 5,991,410). She also rejects claims 114-184 under 35 USC 112 as being indefinite on the ground that it is unclear what “device type” means in the independent claims, what the software is embedded on (i.e., tangible medium), and what devices are controlled through the ATM.

Reconsideration of the rejection of claims 114-184 under 35 USC 103 as being obvious over the Hillson reference in view of the Albert et al. reference is respectfully requested. In making this rejection, the Examiner acknowledges deficiencies of the Hillson reference, but contends that it would have been obvious to incorporate the teachings of Albert et al. within Hillson in order to overcome those deficiencies. The Examiner specifically acknowledges “...Hillson does not disclose providing middleware software at the ATM or kiosk for interfacing the application with the at least one device, wherein the middleware comprises a software component for each device type, each software component embodying an ability to interpret specific capabilities of a plurality of devices belonging to the device type that the software component is for and controlling within the ATM or kiosk by the software application.” In view of those deficiencies of Hillson, the Examiner states, as was just mentioned, that it would have been obvious to incorporate the teachings of Albert et al. within Hillson in order to overcome those deficiencies.

One clear problem with the incorporation proposed by the Examiner is that Albert et al. does not disclose the claimed subject matter that the Examiner acknowledges is missing from Hillson. More specifically, Albert et al., like Hillson, does not disclose providing middleware

software at an ATM or kiosk for interfacing an application with at least one device, wherein the middleware comprises a software component for each device type, each software component embodying an ability to interpret specific capabilities of a plurality of devices belonging to the device type that the software component is for and controlling within the ATM or kiosk by the software application devices belonging to the device type that the component is for. Thus, even if it were considered obvious to modify Hillson to incorporate teachings of Albert et al., as the Examiner contends, the modified Hillson reference still would not include the claimed features missing from Hillson itself, namely, providing middleware software at an ATM or kiosk for the function described above that is recited in the claims, wherein the middleware comprises the features described above that are recited in the claims.

In the passages of Albert et al. cited by the Examiner, column 11, line 38 refers to downloading new programs to a terminal, and column 15, lines 60 and 61 refers to a data frame being indicative of a request for a software update download. However, nothing in Albert et al. discloses the subject matter of the claims of the application that the Examiner acknowledges is missing from the Hillson reference. Merely suggesting downloading new programs to a terminal, as Albert et al. discloses, does not, even if combined with Hillson, place the public in possession of the idea of providing middleware software at an ATM or kiosk for interfacing an application with at least one device, wherein the middleware comprises a software component for each device type, each software component embodying an ability to interpret specific capabilities of a plurality of devices belonging to the device type that the software component is for and controlling within the ATM or kiosk by the software application devices belonging to the device type that the component is for. Albert et al. does not disclose what is in the programs that are downloaded, and so one of ordinary skill would not get from Albert et al. any idea of the

concept of providing middleware software at an ATM or kiosk for performing the function recited in the claims, wherein the middleware comprises the features recited in the claims.

The applicant points out that Albert et al. uses “transaction device” to mean the whole machine or terminal, whereas the present application uses it to mean a device connected to an ATM, kiosk or terminal.

With respect to the rejection of the claims as being indefinite and, more particularly, with respect to the Examiner’s statement that it is unclear what the software is embedded on, the applicant points out that, for example, “embedded software application” of claim 1 is clear in itself to those of ordinary skill in the art and that it is not necessary for the applicant to limit the claim to any tangible medium that the software might be embedded on. In this regard, page 1 of the specification discloses that: 1) the present invention relates to computer-based transaction machines (lines 3-5), and 2) transaction machines are any computer-based machine able to interact with a user (lines 9 and 10). Page 1 further discloses that the term ATM refers to any transaction machine able to dispense cash (lines 12, 13), that kiosks are transaction machines unable to dispense cash, but otherwise able to provide a range of interactive features, often relating to financial services (lines 17-20), and that, for test purposes, a conventional PC may be used as a transaction machine (lines 20-22). Persons having ordinary skill in the art know that computers and computer-based machines have tangible media on which software can be embedded, and they know various types of tangible media on which software can be embedded.

With respect the clarity of what the software is embedded on, in *In re Moore*, 169 USPQ 236 (CCPA 1971), the court said “This...inquiry...is merely to determine whether the claims do, in fact, set out and circumscribe a particular area with a reasonable degree of precision and particularity....[T]he definiteness of the language must be analyzed--not in a vacuum, but always

in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art.” Furthermore, as Judge Rich said in *In re Wright*, 9 USPQ2d 1649, 1651 (Fed. Cir. 1989), the claimed subject matter need not be described in the same words in the specification in order for that specification to satisfy the description requirement. Accordingly, it is not necessary for the claims to recite that the software is embedded on tangible media or to recite any specific tangible medium.

With respect to the specification and the disclosure of what the software is embedded on (i.e., tangible medium), the following cases are pertinent. In *Webster Loom v. Higgins*, 105 U.S. (15 Otto.) 580 (1881), the US Supreme Court emphasized that the specification need not be enabling to an “unskilled” layperson and may assume “that which is common and well known” to persons skilled in the relevant art. In *Paperless Accounting, Inc. v. Bay Area Rapid Transit Sys.*, 231 USPQ 649, 653 (Fed. Cir. 1986), the court stated: “A patent applicant need not include in the specification that which is already known to and available to the public.” In *Spectra-Physics, Inc. v. Coherent, Inc.*, 3 USPQ2d 1737, 1743 (Fed. Cir. 1987), the court stated: “A patent need not teach, and preferably omits, what is well known in the art.”

The principles described above in connection with, for example, “embedded software application,” also apply to “device type” and what devices are controlled within the ATM. It is clear what “device type” means and what devices are controlled within the ATM, when the claims are considered in light of the specification. The list in the paragraph beginning at page 17, line 15 gives examples of device types. A device is a specific embodiment of a device type. There can be different embodiments of a device type. For example, where a card reader is the device type, a card reader made by a first manufacturer can be a first device, a card reader made by a second manufacturer can be a second device, and a model of card reader made by the first

manufacturer that is a different from the first device made by the first manufacturer, or an upgrade or revision of the first device made by the first manufacturer, can be a third device. Of course, other card readers can be other devices of that device type.

The applicant points out that the following passages and other passages of the application make clear what “device type” means and provide examples of devices that are controlled within the ATM:

page 17, lines 5-11 of the specification discloses 1) that device controls provide hardware independent access to the special devices on an ATM or kiosk, and 2) that a device control abstracts the details of the hardware underneath it and acts as a complete server for that device;

page 17, line 15 – page 18, line 8 of the specification provides a list of examples of device controls supported by the system; and

page 19, lines 25-34 discloses: “All controls implement a capabilities interface, allowing an application or wizard to interrogate the capabilities of the control as well as the device which the control represents. Therefore, not only can different hardware implementations be integrated into the same network or Extranet, the applications can dynamically configure the services they provide depending on the capabilities of the hardware available on the kiosk”.

In addition, claim 34 of the Preliminary Amendment filed with the original US application papers is drawn to a method in which a “transaction machine is coupled to at least one transaction device”, and claim 68 of the Preliminary Amendment filed with the original US application papers is drawn to “A computer based transaction machine comprising: at least one transaction device, having a set of capabilities inherent thereto” and “an operating system to communicate with, and control said transaction device” and middleware software “comprising an application programming interface adapted to provide communication and control services

with said transaction device to said software application”.

In order to provide closer correspondence between the terms in the claims and the terms in the specification, the paragraph beginning on page 17, line 15 has been amended by the present Amendment to begin as follows: “Some example device controls supported by the system are device controls for the following types of devices, or device types ...”.

The applicant notes that the expression “device type” was used in the claims filed with the Amendment of November 2, 2006, and used again in the claims filed with the Amendment of August 8, 2007, but that the Examiner did not object to its use in either of the Office Actions immediately following those Amendments. The Examiner’s rejection now of claims using the expression “device type” amounts to piecemeal examination, which Examiners are supposed to avoid (MPEP 707.07(g)).

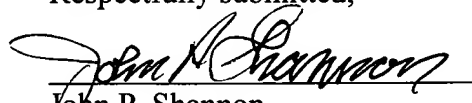
In view of the foregoing, it is submitted that all of the claims are allowable and that the application is in condition for allowance. An early notice to that effect is respectfully requested.

If the Examiner finds that any issues remain to be resolved that might be resolved by a phone call, she is invited to call the undersigned at the number given below.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney’s Deposit Account No. 50-0562.

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Respectfully submitted,


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